

Curculio, Messrs. C. V. Riley and L. O. Howard state that this insect has brought about an almost entire abandonment of plum culture in many parts of America within the last twenty years; but it is by no means confined to this fruit. It breeds in great numbers in cherries, peaches, apricots, nectarines, and other stone fruits, including the Persimmon, and also infests many varieties of apples, crabs, and haws. It prefers, however, smooth-skinned fruits. It is also a common inhabitant of the fungus growth of plum and cherry known as "Black Knot" (*Ploewrightia morbosa*), from which it was first reared by Peck in 1818. Under the headings, "Habits and Natural History," "Natural Enemies," and "Remedies," the authors of the paper (which has just been reissued separately) give full information as to the pest to which they have devoted so much attention.

THE "Catalogue of the Moths of India," on which the compilers, Colonel C. Swinhoe and Mr. E. C. Cotes, have been engaged for three years, is completed; and an elaborate index has now been published. The compilers claim that the "Catalogue" comprises all the known moths of the Indian region, including Burma and Ceylon.

THE *Madras Journal of Literature and Science*, for the session 1888-89, contains, besides various other papers, the second part of an elaborate treatise, by Gustav Oppert, on the original inhabitants of India. In the first he treated of the Dravidians; here he deals with the other aboriginal tribes, whom he classes together under the name of the Gaudians. In the third part he proposes to set forth various conclusions to be drawn from this inquiry, supported by as much trustworthy evidence as he may be able to collect.

THE University Correspondence College, Cambridge, has sent us a copy of its latest "Matriculation Directory." The volume is full of information that will be useful to persons who propose to pass the matriculation examination of the London University. In the parts relating to text-books, much excellent advice is offered to candidates.

THE Mason Science College, Birmingham, has issued its syllabus of day classes for the session 1889-90.

THE Agricultural Society of the Gironde, as quoted in a recent British Consular Report, has published a statement showing the average costs incurred last year by proprietors in this department in employing the best-known remedies, viz. (1) against the *Phylloxera*, sulphuretted carbon; (2) against mildew, the so-called *Bouillie Bordelaise*, a mixture of three pounds of sulphate of copper with one pound of slaked lime and twenty-two gallons of water; (3) against *Oidium*, sulphur; and (4) against *Antrachnosis*, a mixture of eighty pounds of sulphate of iron and ten pounds of sulphate of copper. The total cost of using all these remedies is said to have amounted on an average to about 31s. per acre, an expense which cannot be called excessive, especially when it is added that their application served at the same time as a preventive against snails and slugs, which also often do much damage to vines.

Globus contains an abstract of a paper read lately before the German Scientific Association of Santiago, on the inhabitants of Tierra del Fuego, by the Rev. C. Aspinall, an English missionary who has laboured long among them. The particular tribe amongst which the Ooshonia mission was established has received from Mr. Bridges the name of Jahgan, from a place to the south of Beagle Channel frequented by the tribe. The people usually go naked, save for a small skin thrown over the shoulders, but they smear their bodies with a mixture of train-oil and red earth as a protection against the cold. They support themselves by hunting, and at the worst feed on shell-fish. Certain disorders of the digestion, arising from the latter, they cure by a fungus diet. For

the most part they move about from place to place, without any fixed abode, in bark canoes, in the centre of which a fire always burns. Each canoe contains a family, the wife rowing while the husband is always on the watch with his javelin. He always carries three kinds of spears with him, one for birds, the second for fish, and the third for crabs. On landing, the woman has first of all to carry her husband ashore, he holding the fire carefully above water, and then she begins the erection of their primitive hut. The men are rarely able to swim, but the women invariably, and this, together with their constant work at rowing, gives them extraordinary muscular power. To maintain their position as lords of creation the men have recourse to mysterious rites, from which the women are excluded. The men have usually two wives, an older and a younger one. Without writing of any kind, they yet preserve many rules and customs, mainly relating to the chase. They are good-natured and helpful, not addicted to lying or theft, but tenacious in the defence of their rights. They have many amiable traits of character. They love long stories and conversations, and in these a good part of their time is spent. One of their tales, of an extraordinary strong man who was made of stone, and ultimately was killed by a thorn entering a vulnerable spot in his heel, recalls the story of Achilles. Devoid of all religious ideas and duties, they have a vague idea of the spirits of the departed wandering about in the world, and greatly to be feared.

THE additions to the Zoological Society's Gardens during the past week include a Gazelle (*Gazella dorcas* ♂) from Egypt, presented by Mr. Umberto Arbib; a Cinereous Vulture (*Vultur monachus*) from Central Spain, presented by Lord Lilford; two Vinaceous Turtle Doves (*Turtur vinaceus*) from West Africa, presented by Mrs. Ffoulkes; two Alligators (*Alligator mississippiensis*) from Florida, presented by Mr. J. W. Bannehr; twenty-two Gold Fish (*Carassius auratus*), four Carp (*Cyprinus carpio*), British fresh waters, presented by Mr. A. H. Hastie; a Cinereous Vulture (*Vultur monachus*) from Central Spain, a Grey Parrot (*Psittacus erithacus*) from West Africa, twenty-four Teydean Chaffinches (*Fringilla teydea*) from the Canary Islands, deposited; a Globose Curassow (*Crax globicera*), two Triangular Spotted Pigeons (*Columba guinea*), two Cambayan Turtle Doves (*Turtur senegalensis*), bred in the Gardens.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1889 AUGUST 18-24.

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on August 18

Sun rises, 4h. 52m.; souths, 12h. 3m. 35's.; daily decrease of southing, 13'3s.; sets, 19h. 15m.; right asc. on meridian, 9h. 51'8m.; decl. 12° 58' N. Sidereal Time at Sunset, 17h. 4m.

Moon (at Last Quarter August 18, 11h.) rises, 22h. 18m.*; souths, 5h. 39m.; sets, 13h. 13m.; right asc. on meridian, 3h. 26'4m.; decl. 14° 48' N.

Planet.	Rises.		Souths.		Sets.		Right asc. and declination on meridian.	
	h.	m.	h.	m.	h.	m.	h.	m.
Mercury..	5	48	...	12 46	...	19 44	...	10 31'0 ... 10 33' N.
Venus....	1	10	...	9 11	...	17 12	...	6 58'5 ... 21 9 N.
Mars.....	3	2	...	10 52	...	18 42	...	8 39'9 ... 19 31 N.
Jupiter...	16	11	...	25 4	...	23 57	...	17 53'5 ... 23 25 S.
Saturn....	4	38	...	11 59	...	19 25	...	9 47'1 ... 14 36 N.
Uranus...	9	55	...	15 23	...	20 51	...	13 11'4 ... 6 56 S.
Neptune..	22	34*	...	6 24	...	14 14	...	4 11'2 ... 19 26 N.

* Indicates that the rising is that of the preceding evening.

Aug.	h.		
22	...	22	...
			Venus in conjunction with and 1° 59' south of the Moon.
24	...	18	...
			Mars in conjunction with and 1° 29' south of the Moon.

Variable Stars.

Star.	R.A.		Decl.			h.	m.
	h.	m.					
Algol	3	1'0	40° 32' N.	Aug. 22,	3	32	<i>m</i>
δ Libræ	14	55'1	8° 5' S.	"	22,	1 14	<i>m</i>
U Ophiuchi... ..	17	10'9	1° 20' N.	"	23,	3 10	<i>m</i>
				"	23,	23 18	<i>m</i>
X Sagittarii... ..	17	40'6	27° 47' S.	"	19,	0 0	<i>M</i>
W Sagittarii	17	57'9	29° 35' S.	"	23,	4 0	<i>m</i>
T Herculis	18	4'9	31° 0' N.	"	20,		<i>m</i>
U Sagittarii... ..	18	25'6	19° 12' S.	"	22,	0 0	<i>m</i>
				"	24,	23 0	<i>M</i>
β Lyræ... ..	18	46'0	33° 14' N.	"	23,	1 0	<i>m</i> ₂
R Lyræ	18	52'0	43° 48' N.	"	21,		<i>m</i>
U Aquilæ	19	23'4	7° 16' S.	"	22,	0 0	<i>m</i>
S Sagittæ	19	51'0	16° 20' N.	"	20,	21 0	<i>m</i>
				"	23,	21 0	<i>M</i>
T Vulpeculæ	20	46'8	27° 50' N.	"	22,	1 0	<i>m</i>
				"	22,	3 0	<i>M</i>

M signifies maximum ; *m* minimum ; *m*₂ secondary minimum.

Meteor Showers.

	R.A.	Decl.	
Near γ Andromedæ	26°	42° N.	Swift ; streaks.
" γ Camelopardalis	55°	71° N.	" "
" π Draconis	290°	62° N.	Slow.

THE CONGRESS OF GERMAN NATURALISTS AND PHYSICIANS.

THE sixty-second Congress of German Naturalists and Physicians will be held, as we have already announced, at Heidelberg, from September 18 to 23 ; and the meeting promises to be one of great interest. Dr. G. Quincke and Dr. W. Kühne, by whom the various necessary arrangements are being made, have issued a programme, and take the opportunity to say that all naturalists, physicians, and students of the natural sciences, who may choose to attend the meeting, will be cordially welcomed. Although by its statutes the Congress consists only of Germans, foreign investigators, by being present and taking part in the proceedings, give much pleasure to their German colleagues.

The three general meetings will be held in the great hall of the Heidelberg Museum on September 18, 20, and 23. To the second of these general meetings, on September 20, a scheme embodying new statutes will be submitted for consideration. This scheme has been worked out by a committee in consequence of resolutions passed at the Congress held last year at Cologne.

According to the old statutes of 1822, still in force, the Congress consists of members and associates, but only the former have the right of voting. Everyone who has written a book on natural science or on medicine is regarded as a member. No one, however, who has merely written an inaugural dissertation can be considered as an author. Admission as associates is open to all who have occupied themselves scientifically with natural science and medicine. The ordinary ticket costs 12 marks ; and the same ticket may be obtained for ladies at half the price. In return for an annual subscription of 5 marks, paid in accordance with the decisions of the Cologne Congress last year, the members receive a special member's ticket. The tickets will often have to be shown, so that members and associates ought to have them always ready.

Resolutions can be passed only at a general sitting ; and everything is decided by the votes of a majority of the members. Resolutions with regard to scientific theses are not adopted either at the general sittings or in the Sections. The Sections elect their own Presidents, and may, in addition to the Secretary previously appointed, nominate, if necessary, a second or a third Secretary.

In connection with the meeting, there will be an exhibition of scientific apparatus, instruments, and preparations. It will be held in the town gymnastic hall (*Turnhalle*), Grabengasse, 22. Arrangements are being made for this exhibition by a special committee, the president of which is Herr Stadtrath Leimbach, 59 Gaisbergstrasse, Heidelberg, to whom all communications relating to the exhibition should be addressed. The ordinary ticket secures admission to the exhibition, which will be open daily, to members and associates only, from 8 to 11 o'clock a.m. During these hours, explanations will, if desired, be given by

exhibitors or their representatives. After 11 o'clock the exhibition will be open to the public, who will have to pay for admission. A catalogue will be provided for members and associates.

The Directors of the Museum and of the Harmonic Society have placed their rooms at the disposal of the Congress ; and through the kindness of the civic authorities, and of the Society to which the Museum belongs, it has been arranged that a concert shall be given in the town garden on September 18, and a festival in the Castle grounds on September 20 ; that the Castle shall be illuminated on the evening of September 23 ; and that a ball shall be given in the Museum on September 21. Tickets for the dinner in the great hall of the Museum, on September 19, will be issued at the Reception Room on Tuesday and Wednesday, September 17 and 18. The Reception Room and Inquiry Office will be on the ground floor of the Bayrischer Hof, 2 Rohrbacher Strasse, near the railway station.

Applications for lodgings will be received by Herr Rathschreiber Webel (Rathhaus, Heidelberg), Secretary of the Lodgings Committee. A representative of this Committee will be present in the Reception Room.

A daily Bulletin will be issued during the sitting of the Congress. Every morning it will be found in the Reception Room, with a list of members and associates ; also with the orders of the day in the Sections, &c. Reports of papers can only be printed afterwards in the scientific part of the Bulletin. Papers which are intended for publication must be written plainly, and handed in not later than October 8.

A post and telegraph office will be open in the ground floor of the University from 8 a.m. to 8 p.m., and a room will be set apart for the writing of letters. Dr. Quincke and Dr. Kühne have not been able to induce the railway companies to issue tickets at a reduced price.

On Sunday, September 22, the following excursions will be made :—

(1) Through the Valley of the Neckar to Neckarsteinach, Hirschhorn, Eberbach, Ernstthal.

(2) By the Bergstrasse to Weinheim, Bensheim, Auerbach, Zwingenberg, Jugenheim.

(3) In the Palatinate, to Speyer, Neustadt, Annweiler, Dürkheim.

(4) To Mannheim, for the examination of the collections there, and for a visit to the opera.

All members and associates (even those who may already have their tickets) are requested to write their names on the list in the Reception Room, and at the same time to give their cards, with name, titles, and place of residence.

The following is the general order of the day :—

Tuesday, September 17 : 9 a.m., opening of the Exhibition ; 8 p.m., friendly meeting in the Museum.

Wednesday, the 18th : 9 a.m., first general meeting in the great hall of the Museum. (1) Opening of the Congress : Speeches. (2) Lecture by Geh. Rath von Meyer (Göttingen-Heidelberg), on "Chemical Problems of the Present Day." (3) Lecture by Dr. G. H. Otto Volger (Frankfurt), on the "Life and Achievements of Dr. K. Schimper."

Midday : Assembling and formation of the Sections.

Afternoon : Sittings of the Sections.

7 p.m. : Concert in the Town Garden.

Thursday, the 19th : Sittings of the Sections ; 5 p.m., dinner in the great hall of the Museum.

Friday, the 20th : 9 a.m., second general meeting in the great hall of the Museum. (1) Lecture by Prof. Hertz (Bonn), on "The Relations between Light and Electricity." (2) Consideration of the scheme of new statutes, under the presidency of Dr. Virchow, as Chairman of the Committee by which the scheme was drawn up. (3) Election (a) of the new Committee, (b) of the next place of meeting, (c) of the business managers of the next meeting.

Afternoon : Sittings of the Sections.

6.30 p.m. : Festival at the Castle.

Saturday, the 21st : Sittings of the Sections. 7.30 p.m., ball in the Museum.

Sunday, the 22nd : Excursions in the neighbourhood.

Monday, the 23rd : 9 a.m., third general meeting in the great hall of the Museum. (1) Lecture by Prof. Th. Puschmann (Vienna), on "The Significance of History for Medicine and the Natural Sciences." (2) Lecture by Prof. Brieger (Berlin), on "Bacteria."

Afternoon : Sittings of the Sections.

7.30 p.m. : Illumination of the Castle.